

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of :
Rodrick A. Herdman : Confirmation No. 2657
Serial No. 10/708,658 : Group Art Unit 3676
Filed March 17, 2004 : Examiner GALL, Lloyd A.
RAPID-CHANGE LOCK :
:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.132

I, Rodrick A. Herdman, do hereby declare as follows:

1. I am the sole inventor of the subject matter described and claimed in the above-identified U.S. patent application 10/708,658.
2. I have read and am familiar with the Office Action dated June 18, 2008. I have also read and am familiar with the Monahan reference, US Patent 4,836,002.
3. I have 32 years experience as a profession locksmith, and have been designing and manufacturing cylinder locks since 1985.
4. The Office Action states that "it would have been obvious to use/configure the single change tool 51 of Monahan to move all of the change balls from the retainer cavities, as an obvious matter of design choice, as the disclosure of Monahan suggests moving plural balls by the change tool, whichever balls are being selected as one's choice." (emphasis in the original)
5. Monahan teaches that a programming member (set blade 53) is positioned in the slot to control the position of the master pins relative to the shear line (col 2 lines 63-66). As shown in Fig. 6, most of the master pins 47 are supported by the set blade 53 within the respective blind holes 50. In each of CHART 1 (single blade) and CHART 3 (dual blade), the

set blade positions are predominantly configured with a "0" contour, which retains a master pin within the respective blind hole.

6. With the plug in the key-insertion position (as shown in Fig. 9 and 10), a master pin 47 disposed within a blind hole 50 (below the shear line) is fixed in position, and is trapped within the blind hole radially by the cylindrical wall of the housing 38.

7. If the set blade 53 has a raised contour portion disposed rearward axially (toward the inserted leading end of the set blade) from one of the trapped master pins, then the set blade cannot be withdrawn from the slot 55 while the plug is in an operating position (except for the programming position of Fig. 1), including the key-insertion position of Figure 5. Figure 6 shows that the bevel 70 provided on the leading end 69 is blocked from movement by the master pins 47 in the F blind hole, so that set blade SB1 could not be withdrawn from the slot 55 when the plug was in an operating position. Similarly, Figure 7 shows that the bevel 70 is blocked from movement by the remaining one master pin 47 in the F blind hole, and the raised #2 contour of the set blade at position F is blocked by the master pins 47 in the E blind hole, so that set blade SB6 cannot be withdrawn from the slot 55 when the plug was in an operating position.

8. The Examiner states that a hypothetical set blade, which is not described expressly or inherently in Monahan, that does not trap any of the master pins, such as by having a linear edge having #4 contours along positions A-F, is an obvious design choice. Such a hypothetical set blade would have no #0 or #2 contours along its length that could retain a master pin or pins. The corresponding user key associated with such hypothetical set blade would have all lower contours that would retain all of the master pins within the plug holes 41 at each position A-F during operation (as shown in Position A for First Change Key C1 in Figure 9).

9. Such a hypothetical set blade would not have or support any trapped master pins within a blind hole, and therefore would not have any raised contour portion disposed axially rearward from a trapped master pin. Such hypothetical set blade has no means for being retained within the slot when the lock is rotated to an operating position including the key insertion position, and therefore would be pulled with relative ease from the slot of Monahan at any time, and perhaps lost or thrown away. Unlike every other set blade configuration contemplated by Monahan, the hypothetical set blade would be removable from the slot while the plug is in the key insertion position, with disastrous consequences.

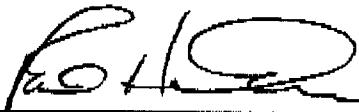
10. Without the hypothetical set blade disposed within the slot, and with all of the master pins disposed within the plug holes 41 upon use of the corresponding hypothetical user key, each of the driver pins 44 positioned above a blind hole would fall down into the blind holes when the lock is rotated to the programming position (as in Fig. 6), thereby irretrievably jamming the lock. The driver pins could then only be removed from the blind holes by disassembling the lock, by removing plug from the housing cylinder.

11. Therefore, in my opinion as a person of ordinary skill in the art, a hypothetical set blade 53 that would have an upper edge 48 that raises all of the master pins 47 disposed in all of the blind holes 50 to a position out of the blind holes and above the shear line, would predictably fail to operate the lock of Monahan as intended. Such configuration and use of such a set blade would permit the set blade to be withdrawn from the slot under normal lock operation, unlike every other set blade configuration contemplated by Monahan, which would result in the lock becoming irretrievably jammed by driver pins falling down into the blind holes. The lock would need to be disassembled by removing the plug from the housing cylinder.

I further declare that all statements made of my knowledge are true and that all statements made on information and belief are believed to be true; further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 USC 1001 and may jeopardize the validity of the application or any patent issuing thereon.

9-17-08

Date


Rodrick A. Herdman

18 USC 1001: *"Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both."*